

PATENT ABSTRACTS OF JAPAN

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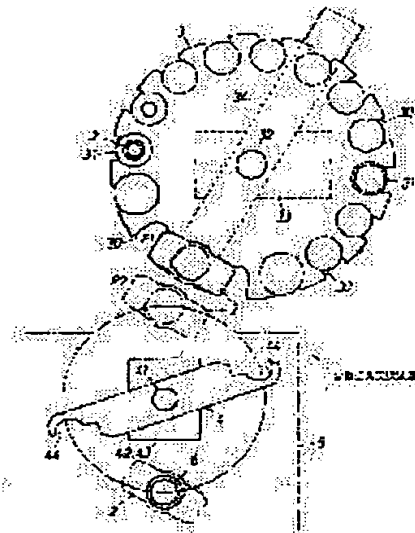
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(54) TOOL EXCHANGE CONTROL METHOD

(57)Abstract:

PURPOSE: To prevent interference of a tool while the increase of a tool exchange speed is utilized effectively by a method wherein during exchange of a tool having size enough for prevention of interference, revolving movement of an exchange arm and dividing of the return position of a tool magazine are executed in parallel in terms of a time, and during exchange of a tool having size enough for the occurrence of a fear of interference occurring or the occurrence of interference, revolving movement of the exchange arm and dividing of the return position of the tool magazine are executed independently from each other with a time lag therebetween.

CONSTITUTION: During exchange of a tool 2 large enough to prevent the occurrence of interference, revolving movement of an exchange arm and dividing of the return position of a tool magazine are executed in parallel in terms of a time, and during exchange of a tool large enough for the occurrence of a fear of interference occurring or the occurrence of interference, revolving movement of the exchange arm 4 and operation to divide the return position of the tool magazine 3 are executed independently from each other with a time lag therebetween. This control reduces the size of a tool exchange device 1, and prevents the occurrence of interference between a large tool 2 on the exchange arm 4 side and a tool 2 on the tool magazine 3 side during exchange of the large tool as characteristics on the increase of the exchange speed of a tool having an ordinary size or a small size are utilized effectively.



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